(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 1 September 2005 (01.09.2005)

PCT

(10) International Publication Number WO 2005/079726 A1

(51) International Patent Classification⁷: A61H 31/00, A62B 7/00, 18/00, A61M 16/00

(21) International Application Number:

PCT/NZ2005/000023

(22) International Filing Date: 18 February 2005 (18.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

531332 23 February 2004 (23.02.2004) NZ 534606 6 August 2004 (06.08.2004) NZ

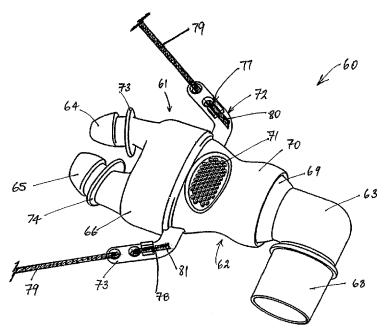
- (71) Applicants (for all designated States except US): FISHER & PAYKEL HEALTHCARE LIMITED [NZ/NZ]; 15 Maurice Paykel, East Tamaki, Auckland, 1706 (NZ). PRENTICE, Craig, Robert [NZ/NZ]; 95 Kiwi Esplanade, Mangere Bridge, Auckland, 1701 (NZ).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MCAULEY, Alastair, Edwin [NZ/NZ]; 58A Ngapuhi Road, Remuera,

Auckland, 1005 (NZ). **GLEESON, Oliver** [NZ/NZ]; 19A Ropata Avenue Point England, 1006 Auckland (NZ).

- (74) Agents: ADAMS, Matthew, D et al.; A J Park, 6th Floor Huddart Parker Building, PO Box 949, Wellington, 6015 (NZ).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

[Continued on next page]

(54) Title: BREATHING ASSISTANCE APPARATUS



(57) **Abstract:** The present invention comprises a nasal cannula (2), shaped to fit within a user's nares, where the nasal cannula includes at least one prong (24, 25) allowing high flow delivery of humidified gases and creates positive airway pressure in the patient's airway. The prongs have angled ends (31, 32), such that in use, gases flowing through the prongs are directed to the user's nasal passages. The nasal cannula body is partially swivelling and preferably has a ball joint connector (37, 39). In another embodiment the nasal cannula may have at least one flared end prong (31, 32) that preferably seals within a patient's nare.

WO 2005/079726 A1



SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

with international search report